

### Amendments

#### **In the Specification**

Please amend the specification at page 13, second full paragraph beginning at line 14, bridging to page 14, line 19, to read as follows:

Sodium, especially in high concentrations of greater than about 1,000 ppm, preferably greater than about 10,000 ppm, has also been shown to improve the efficiency of the rheology modification agent with clay. Such is preferably present or employed in an amount from about 10,000 ppm to about 100,000 ppm. Interestingly, the presence of sodium in an uncalcined starting material such as a hydrotalcite operates to destroy or substantially reduce reactivity of the post-calcined material with clay, i.e., it the sodium prevents the material from being "activated" during its calcination, "activation" being defined as being altered alteration to enable it the material to absorb anions, particularly chromate, under the "CAT" test ("Colorimetric Adsorbance Test", as described in U.S. Patent 5,603,839 to Fitzgerald et al., incorporated herein by reference, measuring the amount of chromate  $[\text{CrO}_2^-]$  ion which remains in solution), as it is heated to, and through, the 400 to 700°C temperature range. Without wishing to be bound by any theory, it is hypothesized that this prevention of "activation" in this temperature range is helpful in enabling the composition to undergo the very different changes, and in particular the changes in crystallographic structure, that occur in the 750°C and higher temperature range that is employed during calcination. X-ray diffraction analysis indicates that the crystal formation progresses from ambient, at which the magnesium and aluminum may be combined in a brucite structure; to the 400 to 700°C range, where waters of hydration have been removed and MgO crystals having therein substituted aluminum form ("activation"); to the 750°C and higher range, where materials whose constituents will now conform to the formula undergo removal of the aluminum from the MgO crystals and its reformation as AlO crystals as a separate phase, the MgO and AlO aligned near each other as essentially layers of "sols", "sol" being defined as pure mono metal oxide particles having

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diameters from about 75 microns to about 300 microns (see, e.g., Snow, et al., *Chemical Engineers' Handbook*, 5<sup>th</sup> edition, p. 64) with the composition as a whole still adhering to the formula given in Claim 1 hereunder; to the 1300 to 1500°C range, where ceramicization occurs and a true, inert spinel forms. Despite this mechanistic theory, however, it is important to remember that, while heating certain specific materials provides one, relatively simple and inexpensive way to produce the formulaically-defined material, heating *per se* is not necessary provided that the final material adheres to the formula. Nonetheless, heating as described tends to improve efficacy.